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EXAMINER

SANTIAGO, MARICELI

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/076,320

Applicant(s)

MAEDA, TSUYOSHI

Examiner

Mariceli Santiago

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement (PCT-444) (Page \_\_\_\_)
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)

## DETAILED ACTION

### Claim Objections

Claims 10 and 11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should not make reference to two sets of claims to different features. See MPEP § 608.01(n). Accordingly, the claims 10 and 11 have not been further treated on the merits.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakayama et al. (US 5,554,911).

Regarding claims 1 and 13, Nakayama discloses an electronic apparatus comprising an EL element comprising at least one organic layer that includes a light-emitting layer (105), and a pair of electrodes (103, 106) opposed to each other, the at least one organic layer being disposed between the pair of electrodes, one electrode of the pair of electrodes being a transparent electrode (103) that transmits light having a wavelength of 400 nm or more and less than 700 nm, the other electrode (106) being a reflective electrode that reflects light having a wavelength of 400 nm or more and less than 700 nm, the light-emitting layer (105) emitting light having a wavelength of 400 nm or more and less than 700 nm, the transparent electrode (103) passing a wavelength at the peak of light emission of the light-emitting layer and a wavelength

Art Unit: 2879

at a peak of transmittance of the transparent electrode being in close agreement with each other (Column 4, lines 15-27).

Regarding claim 3, Nakayama discloses an EL element comprising at least one organic layer (105) that includes a light-emitting layer, the light emitting layer emitting green light, and a pair of electrodes (103, 106) opposed to each other, the at least one organic layer being disposed between the pair of electrodes, one electrode of the pair of electrodes being a transparent electrode (103, ITO), through which light emitted from the light-emitting layer passes, and the transparent electrode including an indium tin oxide film, and having a film thickness of  $150 \pm 20$  nm (Column 4, lines 23-27).

Regarding claim 4, Nakayama discloses an EL element comprising at least one organic layer (105) that includes a light-emitting layer, the light emitting layer emitting red light, and a pair of electrodes (103, 106) opposed to each other, the at least one organic layer being disposed between the pair of electrodes, one electrode of the pair of electrodes being a transparent electrode (103, ITO), through which light emitted from the light-emitting layer passes, and the transparent electrode including an indium tin oxide film, and having a film thickness of  $150 \pm 20$  nm (Column 4, lines 23-27).

Regarding claims 12 and 14, Nakayama discloses an electronic apparatus comprising an EL display having at least two emission colors including at least green emission, comprising at least one organic layer that includes a light-emitting layer (105), and a pair of electrodes (103, 106) opposed to each other, the at least one organic layer being disposed between the pair of electrodes, one electrode of the pair of electrodes being a transparent electrode (103, ITO), through which light emitted from the light-emitting layer passes, the transparent electrode

Art Unit: 2879

respect to respective emission colors being in close agreement with each other (Column 4, lines 15-27).

Claims 2-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Duggal et al. (US 6,515,314).

Regarding claim 2, Nakayama discloses an EL element comprising at least one organic layer (40) that includes a light-emitting layer, the light emitting layer emitting blue light (Column 6, lines 10-42), and a pair of electrodes (30, 50) opposed to each other, the at least one organic layer being disposed between the pair of electrodes, one electrode of the pair of electrodes being a transparent electrode (30), through which light emitted from the light-emitting layer passes, and the transparent electrode including an indium tin oxide film, and having a film thickness of  $120 \pm 20$  nm (Column 4, lines 46-54).

Regarding claim 3, Nakayama discloses an EL element comprising at least one organic layer (40) that includes a light-emitting layer, the light emitting layer emitting green light (Column 6, lines 10-42), and a pair of electrodes (30, 50) opposed to each other, the at least one organic layer being disposed between the pair of electrodes, one electrode of the pair of electrodes being a transparent electrode (30), through which light emitted from the light-emitting layer passes, and the transparent electrode including an indium tin oxide film, and having a film thickness of  $150 \pm 20$  nm (Column 4, lines 46-54).

Regarding claim 4, Nakayama discloses an EL element comprising at least one organic layer (40) that includes a light-emitting layer, the light emitting layer emitting red light (Column 6, lines 10-42), and a pair of electrodes (30, 50) opposed to each other, the at least one organic layer being disposed between the pair of electrodes, one electrode of the pair of electrodes being a transparent electrode (30), through which light emitted from the light-emitting layer

Art Unit: 2879

passes, and the transparent electrode including an indium tin oxide film, and having a film thickness of  $180 \pm 20$  nm (Column 4, lines 46-54).

Regarding claim 5, Nakayama discloses an EL element comprising at least one organic layer (40) that includes a light-emitting layer, the light emitting layer emitting blue light (Column 6, lines 10-42), and a pair of electrodes (30, 50) opposed to each other, the at least one organic layer being disposed between the pair of electrodes, one electrode of the pair of electrodes being a transparent electrode (30), through which light emitted from the light-emitting layer passes, and the transparent electrode including an indium zinc oxide film, and having a film thickness of  $110 \pm 10$  nm (Column 4, lines 46-54).

Regarding claim 6, Nakayama discloses an EL element comprising at least one organic layer (40) that includes a light-emitting layer, the light emitting layer emitting green light (Column 6, lines 10-42), and a pair of electrodes (30, 50) opposed to each other, the at least one organic layer being disposed between the pair of electrodes, one electrode of the pair of electrodes being a transparent electrode (30), through which light emitted from the light-emitting layer passes, and the transparent electrode including an indium zinc oxide film, and having a film thickness of  $130 \pm 10$  nm (Column 4, lines 46-54).

Regarding claim 7, Nakayama discloses an EL element comprising at least one organic layer (40) that includes a light-emitting layer, the light emitting layer emitting red light (Column 6, lines 10-42), and a pair of electrodes (30, 50) opposed to each other, the at least one organic layer being disposed between the pair of electrodes, one electrode of the pair of electrodes being a transparent electrode (30), through which light emitted from the light-emitting layer passes, and the transparent electrode including an indium zinc oxide film, and having a film

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. (US 5,554,911) in view of Duggal et al. (US 6,515,314).

Regarding claim 8, Nakayama discloses an EL display comprising a plurality of EL elements arranged in a matrix, and a substrate (101). Nakayama fails to disclose the EL display further comprising partition walls provided around the EL elements on the substrate. In the same field of endeavor, Duggal discloses an EL display comprising partition walls around EL elements use to separate pixels or regions and provide independent power supply for each individual OLED element (Column 8, lines 53-58). Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the partition walls disclosed by Duggal in the EL display of Nakayama in order to separate pixels or regions and provide independent power supply for each individual OLED element.

Regarding claim 9, Nakayama discloses an EL display wherein the EL elements include a red-emitting EL element, a green-emitting EL element, and a blue-emitting EL element.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner

Art Unit: 2879

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7382. Additionally, the following fax phone numbers can be used during the prosecution of this application (703) 872-9318 (for response before a Final Action) and (703) 872-9319 (for response after a Final Action).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

*(Patent 6-12763)*  
Mariceli Santiago  
Patent Examiner  
Art Unit 2879

*10/11/11*